

B1 adjacent to the leading groove wall 26 in each groove 18. A base support surface 36 supports the base 32 of a straight flat blade 34 adjacent to the trailing wall 28 in each groove 18. The groove floor 38 in each groove 18 is spaced radially inward from the base support surfaces 30 and 36. The leading wall 26 of each groove 18 is in a plane that extends from the left end 22 to the right end 24. The trailing wall 28 of each groove 18 is also in a plane that extends from the left end 22 to the right end 24. --

Rewrite the paragraph bridging pages 6 and 7, beginning at line 19 of page 6 as follows:

-- Figures 4-8 shows the location of the starting and ending points of the blade support surfaces 30, 40, 42 and 44, in a cartesian coordinate system. The rotor 10 in the example shown in Figures 1 and 2 is a metric unit manufactured in a machining center that is programmed in inches. The machining center can also be programmed in a polar coordinate system as well as in metric units. The end result would be the same regardless of the programming employed by the machining center. --

B2 [Insert the following paragraph at line 3 of page 7 as follows:]

-- The minimum distance from the axis of rotation 12 to the planes including the leading groove walls 26 and a trailing groove wall 28 is indicated by the references Y1 and Y2 respectively. The minimum distances from the axis of rotation 12 to planes including the ends of the base support surfaces 30, 40, 42 and 44 is indicated by the reference Z1. The minimum distance from the axis of rotation 12 to planes including the ends of the base support surfaces 36, 46, 48 and 50 is indicated by the references Z2. The values of Y and Z depend upon a number of

factors including rotor lengths, rotor diameter, the length of the blades 34, and the angle θ of the helix.

B2
The following chart shows the values of the distances Z1 and Z2 for a rotor with a helix angle θ of 1°, a specific length, diameter, and other variable dimensions, with the dimensions to the nearest ten thousandth of an inch.

Plane	Z1	Z2
Section 4-4 (Figure 4)	2.7350	2.7350
Section 5-5 (Figure 5)	2.6830	2.6830
Section 6-6 (Figure 6)	2.6250	2.6250
Section 7-7 (Figure 7)	2.5560	2.5560
Section 8-8 (Figure 8)	2.4830	2.4830 --

B3
Rewrite the paragraph bridging pages 7 and 8, beginning at line 8 of page 7 as follows:

-- Two straight flat blades 34 are mounted in each groove 18 in one groove section. One blade 34 has its base 32 on the base support surface 30 and another blade has its base on the base support surface 36. A wedge block 66 is placed between the two blades 34. Bolts 70 pass through bores 68 through the wedge block 66 and screw into threaded bores 72 in the rotor 10. When the bolts 70 are tightened, they urge the wedge block 66 toward the groove floor 38 and the axis of rotation 12, urge one blade 34 toward the base support surface 30 and the leading wall 26 and urge the other blade toward the base support surface 36 and the trailing wall 28. One wedge face 74 of each wedge block 66 contacts the front face 60 of a blade 34. The other wedge face 80 contacts the back face 62 of a blade 34. The bases 32 of the blades 34 in each groove 18 adjacent to the end 22 as well as

to the end 24 are closer together than the bases of the blades on the support surfaces 40 and 46 as well as the support surfaces 42 and 48. The wedge blocks 66 are shaped to accommodate these differences in spacing. The wedge blocks 66 adjacent to the ends 22 and 24 of the grooves 18 are relatively narrow. The wedge blocks 66 that are midway between the ends 22 and 24 of the grooves 18 are relatively wide. --

B3 [Rewrite the paragraph beginning at line 6 of page 8 as follows:]

-- The rotor 10 as described above has eight blades 34 in each groove 18. There are a total of sixteen grooves 18 and one hundred twenty-eight blades 34. All of these blades 34 are identical to each other. As a result the blades 34 can be changed in the field and can also be sharpened in the field. The rotor 10 as described above with blades 34 that are 200 mm long, mounted on a rotor that is 200 mm in diameter and that has a helix angle θ of 1° has a decreased diameter in the center of the blade 34 of about 0.0015 ten thousandths of an inch. This is generally satisfactory for cutting most materials. The hourglass effect can be decreased further by decreasing the length of the blades 34 and adding additional base support surfaces 30 that fit the blades. The hourglass effect can also be varied by changing the helix angle θ . --

B4 [Rewrite the paragraph beginning at line 4 of page 9 as follows:

-- The rotor construction disclosed above permits the use of standard blades 34. By using blades with a standard size, a grinder employing the rotor 10 can be repaired in the field using tools that are normally available. The repair of a rotor with a few nicked blades 34 could be completed in a few minutes to a few hours. Replacement of all the blades 34 on a rotor 10 can be completed within a